

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) Antenna switch ~~(31)~~ which is arranged to alternately operate in a receive mode and a transmit mode, the antenna switch ~~comprising~~ comprising:
an adaptive filter ~~(30)~~ for coupling a signal processing means to an antenna ~~(1)~~ during the receive mode and for electrically insulating the signal processing means from the antenna ~~(1)~~ during the transmit mode, wherein the adaptive filter ~~(30)~~ has comprises a circuit arrangement of at least one capacitor and at least one inductor, wherein:
a group of circuit components of the circuit arrangement implements a transmit filter stage with a first passband (22,24) during the transmit mode,
wherein the first passband is a band-pass passband; and
a subset of the group of circuit components of the circuit arrangement implements a receive filter stage with a second passband (20) during the receive mode, wherein the first passband (22, 24) is a band-pass passband.
2. (currently amended) Antenna switch ~~(31)~~ according to claim 1, wherein the signal processing means are electrically insulated from the antenna ~~(1)~~ by controllably configuring the adaptive filter ~~(30)~~ such that the adaptive filter is coupled between the antenna ~~(1)~~ and ground ~~(GND)~~ during the transmit mode.
3. (currently amended) Antenna switch ~~(31)~~ according to claim 2, wherein the adaptive filter ~~(30)~~ is comprises a high-impedance filter during the transmit mode and a low-impedance filter during the receive mode.
4. (canceled)

5. (currently amended) Antenna switch ~~(31)~~ according to claim 1, wherein the second passband ~~(20)~~ is comprises a high-pass passband.
6. (currently amended) Antenna switch ~~(31)~~ according to claim 1, wherein the adaptive filter ~~(30)~~ comprises a switch device ~~(S5,S6,S7)~~ through which the signal processing means is coupled to the adaptive filter.
7. (currently amended) Antenna switch ~~(31)~~ according to claim 6, wherein the switch device ~~(S5,S6,S7)~~ is comprises a low-power switch device.
8. (currently amended) Antenna switch ~~(31)~~ according to claim 7, wherein the low-power switch device is comprises a low-power pHEMT or a MEMS.
9. (currently amended) Antenna switch ~~(31)~~ according to claim 1, wherein the adaptive filter ~~(30)~~ is further arranged to provide electrostatic discharge protection.
10. (currently amended) Antenna switch ~~(31)~~ according to claim 1, wherein the adaptive filter ~~(30)~~ comprises switching devices ~~(S2,S4,S8)~~ to change the geometry of the adaptive filter ~~(30)~~.
11. (currently amended) Module ~~(40)~~ comprising an antenna switch ~~(30)~~ according to claim 1.
12. (currently amended) Portable radio device ~~(50)~~ comprising an antenna switch ~~(30)~~ according to claim 1.
13. (new) The antenna switch according to claim 1, wherein the group of circuit components of the transmit filter stage comprises:
a pair of capacitors coupled in series between the antenna and switches for the signal processing means;

a first inductor coupled between ground and a common node of the pair of capacitors; and

a series arrangement of a second inductor and a third capacitor coupled in parallel with the pair of capacitors.

14. (new) The antenna switch according to claim 1, wherein the adaptive filter further comprises:

a transmitter switch coupled between a transmitter and the antenna;

an inductor switch coupled between the antenna and the second inductor; and

a ground switch coupled between ground and a common node of the second inductor and the third capacitor.

15. (new) The antenna switch according to claim 1, wherein the subset of the group of circuit components of the receive filter stage comprises:

a pair of capacitors coupled in series between the antenna and the signal processing means; and

an inductor coupled between ground and a common node of the pair of capacitors.

16. (new) The antenna switch according to claim 1, wherein the adaptive filter further comprises:

a receiver switch coupled between the signal processing means and the subset of the group of circuit components of the receive filter stage, so that the subset of the group of circuit components of the receive filter stage is between the receiver switch and the antenna.